

Serial No. 10/707,604

3

(GEMS 0223 PA)

In the Specification:**After Paragraph [0013] please add the following:**

Figure 6 is an illustration of a logic used in the main controller of the imaging system illustrated in Figure 1; and

Figure 7 is an illustration of a methodology incorporated by the logic illustrated in Figure 6.

Please replace Paragraph [0023] with the following:

The disclosed invention allows for the testing of the entire detector assembly 18, a portion of the detector assembly, or selected detector cells (see Figure 5). The testing can be implemented anytime during assembly or after final assembly within the factory or for any purpose in the field. The present invention allows for field testing and monitoring of the CT detector assembly 18 without x-rays 16, either on-site or remotely, and without the need for removal of the patient 22. Through the use of a remote connection 74, such as a network connection, in communication with the detector assembly 18, such as through connection with the main controller 36, allows for true remote diagnostics or monitoring. This is especially useful since the remote activation of x-rays 16 is not desirable. The remote diagnostic allows calibration, correction, and monitoring of performance to be done on-site or from a remote site such as the manufacturer's site. A manufacturer or administrator may thereby monitor the performance of the detector assembly 18. Additionally, detector segments or modules can be calibrated without the removal of the patient 16. The main controller 36 preferably contains a logic 76 as illustrated in Figure 6. The logic 76 is adapted to generate radiation 78 preferably using the electroluminescent panel 64. The logic 76 then receives a response from the detector array 80 and evaluates the response 82. The evaluation 82 may take the form of diagnosing the detector assembly 84, calibrating the detector assembly 86 or monitoring the detector assembly 88. This adapted logic 76 translates to a method illustrated in Figure 7. The method includes generating radiation 90, receiving a response signal from the detector array 92, and evaluating the imaging detector assembly using the response signal 94. Again, evaluating 94 may be comprised of diagnosing, calibrating, or monitoring. It is also

Serial No. 10/707,604

4

(GEMS 0223 PA)

contemplated that the method may include remote activation of the generated radiation and remote evaluation of the imaging detector assembly.